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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/194,552	03/23/1999	PETER BROOKS	TSRI481.2	3335

7590

07/30/2002

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EXAMINER

HARRIS, ALANA M

ART UNIT	PAPER NUMBER
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1642

23

DATE MAILED: 07/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/194,552

Applicant(s)

BROOKS ET AL.

Examiner

Alana M. Harris, Ph.D.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 60-62 and 64-87 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 60,62 and 65-87 is/are rejected.
- 7) ☒ Claim(s) 64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response to Arguments***

1. Claims 60-62 and 64-87 are pending.  
  
Claims 49-59 and 63 have been canceled.  
  
Claims 60-62 and 64 have been amended.  
  
Claims 85-87 have been added.  
  
Claims 60-62 and 64-87 are examined on the merits.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Priority***

3. Applicants state that provisional application #60/015,569 (August 14, 1995) has support for SEQ ID NO: 17 based upon the recitation "CTMMP-2 (410-637)". This sequence allegedly is the same as the instant application's chMMP-2 (410-637). There is no evidence that these two sequences are the same. There are no representative sequences in the provisional application to compare with SEQ ID NO: 17 of the instant application.

***Specification***

4. Applicants have directed the Examiner's attention to 37 CFR § 1.76, which sets forth that an application data sheet is sufficient to rely upon for priority benefit.

***Withdrawn Rejections***

***Claim Rejections - 35 USC § 112***

5. The rejection of claims 59-62 and 64-84 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention is withdrawn in light of Applicants' arguments. Claims 49-57 and 63 have been cancelled.

***Claim Rejections - 35 U.S.C. § 103***

6. The rejection of claims 49 and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedlander et al. (Science 270:1500-1502, December 1, 1995) is withdrawn in view of the cancellation of the claims.

7. The rejection of claims 49 and 50 under 35 U.S.C. 103(a) as being unpatentable over Collier et al. (J. Biol. Chem 263(14):6579-6587, 1998) and Chen et al. (J. Biol. Chem 266(8):5113-5121, 1991) is withdrawn in view of the cancellation of the claims.

8. The rejection of claims 60, 62, 65, 66, 71-73, 75, 78, 79, 85 and 87 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,981,478 (filed August 4, 1994) is withdrawn in view of Applicants' arguments. Claim 49 has been cancelled.

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9. The rejection of claim 74 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,981,478 (filed August 4, 1994), in view of U.S. Patent Number 5,567,693 (October 22, 1996) is withdrawn in view of Applicants' arguments.

20. The rejection of claim 74 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,981,478 (filed August 4, 1994), in view of U.S. Patent Number 5,567,693 (October 22, 1996) is withdrawn in view of Applicants' arguments.

### ***New Grounds of Rejection***

#### ***Claim Rejections - 35 U.S.C. § 112***

21. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

22. Claims 60, 62 and 65-87 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 60 broadly state a method for inhibiting  $\alpha_v \beta_5$  mediated angiogenesis comprising an angiogenesis-inhibiting amount of an  $\alpha_v \beta_5$  antagonist. Applicants have not provided sufficient evidence that they were in possession of the infinite number of molecules which would inhibit  $\alpha_v \beta_5$  mediated angiogenesis.

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Applicants' specification broadly states that organic mimetics and monoclonal antibodies which react with  $\alpha_v \beta_5$ . The disclosure does not provide sufficient evidence of all the antagonists capable of arresting angiogenesis encompassed by claim 60. Applicants have not provided any evidence that suggests that other monoclonal antibodies or oligonucleotides would have the same inhibitory effect. A number of antibodies may possess a high affinity for the  $\alpha_v \beta_5$  but not be effective in inhibiting angiogenesis. One of ordinary skill in the art could screen for effective antagonists, but that would be burdensome considering the number of antibodies that possibly bind  $\alpha_v \beta_5$ . The specification only suggest mAb P1F6 and mAB P5H9 effective in inhibiting angiogenesis and does not disclose any cyclic polypeptides and organic mimetic compounds effective in inhibiting angiogenesis. Applicants' have not provided sufficient evidence of the plethora of  $\alpha_v \beta_5$  antagonist encompasses by the claims capable of inhibiting  $\alpha_v \beta_5$  mediated angiogenesis.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alana M. Harris, Ph.D. whose telephone number is (703) 306-5880. The examiner can normally be reached on 6:30 am to 4:00 pm, with alternate Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa, Ph.D. can be reached on (703) 308-3995. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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308-4315 for regular communications and (703) 308-4315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0196.

Alana M. Harris, Ph.D.  
July 29, 2002



ANTHONY C. CAPUTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600